This is the accepted version, for the final version please refer to:

- Wang, W., Cook, M., & Seifert, R., (2018) Foreign-ownership and job insecurity during the recession: the moderating effect of union density in the UK**.** *Economic and Industrial Democracy*, 1-20. DOI: 10.1177/0143831X18808596

Foreign-ownership and job insecurity during the recession: the moderating effect of union density in the UK

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Abstract

The institutional influence, specifically trade unions, on the job insecurity of workers in Foreign-owned Enterprises (FoEs) has been generally overlooked. This study uses national representative private sector data to examine firm's layoff incident and the number of staff made redundant in response to the recent 2008-2012 recession in the UK. Our probit regression and the Negative-Binomial regression show that overall FoEs appear to be more likely to undertake redundancy and to lay off more workers than Domestically-owned Enterprises. However, the strength of trade unionism, measured by union membership density, has a moderating effect in the incident of redundancies controlling for the adverse impact of the recession on companies studied and a wide range of industrial and firm characteristics. Furthermore, FoEs' headquarter location seems to have no effect on the propensity of layoff or quantity of layoff in the UK.

Keywords: Foreign-owned enterprise, Job insecurity, Trade unions, Recession, UK

1.Introduction

Multinational Enterprises' (MNEs) activity and the process of Foreign Direct Investment (FDI) have been an important part of the globalised world economy and contributed significantly to employment in host countries (UNCTAD, 2017). In Ireland, for example, it was estimated that one in five workers are employed by foreign MNEs (The Irish Times, 2016), whereas in the UK more than half of large companies have been foreign owned since 2009 (Brummer, 2012). There has been a lasting concern about job insecurity in Foreign-owned Enterprises (FoEs) compared to Domestically-owned Enterprises (DoEs), especially during a major recession. A few extant studies endeavoured to examine the association between FoEs and plant closures, but produced mixed findings, for a summary see Wagner and Gelubcke (2012).

This study intends to investigate layoff at FoEs in the UK during the 2008-2012 recession and aim to contribute in three ways. First, we empirically examine the differences of a discreet form of job insecurity, redundancy, between FoEs and Domestically owned Enterprises (DoEs). Redundancy is subtle compared with plant closure and tends to be overlooked at FoEs (Andrews, et al., 2012), this study thus further our understandings at the microeconomic level of job insecurity by taking into account ownership types (Brewster et al., 2015; Ellonen and Natti, 2015; Navaretti et al., 2003; Otto et al., 2016). Staff perceived job insecurity at FoEs which caused more concern of the result reliability (Dill and Jirjahn, 2016). Secondly, we examine the moderating role of trade unions on the relationship between the actual job insecurity, redundant incident and firm's ownership. This reduced the concern of subjective job insecurity (self evaluated job insecurity) associated with FoEs (Dill and Jirjahn, 2016) ands provokes debates on the reported subjective job insecurity) associated with union membership withdrawal behaviour (Sverke and Goslinga, 2003) and union's support has no influence on the subjective job insecurity caused mental health (Hellgren and Chirumbolo, 2003). It may offer partial explanation to the newly observed union activism under the adverse economic condition (Angrave et al., 2017). Thirdly, we examine the relationship between location of the source country headquarters' FoEs and job insecurity for the increased globalisation featured by growing FDI from emerging market in developed economies (Seal, 2016). To do so, we used the national representative data collected in UK, 1,500 observations extracted from the Workplace Employment Relations Survey (WERS

2011), during a critical time period when British economy experienced a double dip recession. The paper is organised as follows: Section 2 discusses the theoretical underling of firm level practices: redundancy and foreign ownership, and from which we develop our hypotheses. Section 3 describes methodology and the data set used. The empirical analysis is presented in Section 4, followed by a discussion in Section 5. Finally, conclusions were drawn from the analysis.

2. Literature review

2.1 Foreign ownership and job insecurity in the host country

One considerable emphasis towards FoEs placed by policy makers is that FoEs can lead to significant positive employment effects in host countries and regions. This employment effect was grounded in a range of academic studies (Barrell and Pain, 1997; Driffield, 1999; Heise *et al*, 2002a; Navaretti et al., 2003) and evident in terms of both new job creation and spillover effect (McDonald et al., 2005; Inekwe, 2013). However, the concern of job insecurity at FoEs has come from at least the following reasons: first, it is the "footloose" or "easy come easy go" syndrome (Adam, 1975). FoEs can shift production between locations more easily and may exercise such advantage during economic downturn (Blanchard et al., 2012; Bernard and Sjoholm, 2003; Bernard and Jensen, 2007; Fabbri et al., 2003; McAleese and Counahan, 1979); partly also due to the short-term profit focus found among FoEs (Dill et al., 2016). Secondly, researchers have attributed a higher elasticity of labour demand to job insecurity at FoEs than DoEs for a number of reasons. Deepening international integration of production results in more elastic product demand, labour as a derived demand related to the former, and with increased competition and volatility at the product markets, the demand for labour becomes more volatile, thus lead to higher fluctuation in labour demand (Scheve and Slaughter, 2004; Geishecker, et al., 2012); international trade can also make domestic labour more substitutable with foreign production factors (Slaughter, 2001) Thirdly, the employment volatility tend to higher at FoEs than DoEs (Fabbri et al.. 2003; Merikull and Room, 2014). FoEs tend to implement new production concepts and management practices in overseas subsidiaries that often involve a substantial reorganization and job loss. The presence of a great use of performance management at FoEs than DoEs entails the implicit or explicit threat to dismiss in case of low performance of staff or under difficult economic condition (Jirjahn, 2017).

However, empirical studies have produced mixed findings, "highly country-dependent" , Wagner and Gelubcke (2012) have made a good summary. Take the U.K. for exapme, Farris et al. (2003) using plant-level panel for all British manufacturing from 1973 through 1992 and found that multination plants are more likely to shut down than domestic plants are, despite of operational advantages enjoyed by multinationsl that make them less likely to shut down., while others reported there is no significant closure rate differences between FoEs and DoEs (McLeese and Conahan, 1979; Harris, 2009).

The U.K. is of interest for a number of reasons, including being the second largest host economies for inward FDI among developed countries (Jost 2013) and is relatively successful to attack inflow FDI than its EU continental partners due to its lower labour protection compared with its EU counterparts and (Haaland et al.,2003; Jirjahn, 2017). With 70% economic activities in Britain are related with the rest of the world, mainly carried out by FoEs (ONS, 2014), makes FoEs more vulnerable to external market shocks. Deeper international economic integration makes domestic workers more easily substitutable by foreign workers (Rodrik, 1997).Higher financial or economic shock can prompt such substitute-seeking behavior. The 2008-2012 recession had the worst impact on the UK economy since 1997, with unemployment rate climbing to 8.5% in 2012, and 3.7 million workers were made redundant since 2008 (Aol, 2013). Considering less political pressure and fewer social obligations to preserve jobs at FoEs than DoEs, FoEs may use redundancy to get rid of 'expensive' labour in the wake of the recession either downsizing or substituting labour for capital with minimum fuss. In addition, FoEs tend to be large in size in the UK, with 10% of FoEs of non-Financial Business employing at least 250 people compared with only 0.3% of the similar DoEs in 2012 (ONS, 2014), and large firms were found more likely to use redundancy instead of other means to cope with economic downturn (Lai et al., 2016).We therefore propose that

Hypothesis 1a: FoEs are more likely to lay off workers in the UK during the 2008-2012 recession than DoEs.

Hypothesis 1b: FoEs tend to make more staff redundant than DoFs.

2.2 Trade Union and Job Security

As Hyman (2002:57) stated that "jobs are always at the mercy of economic and technological vagaries". Technological or external economic shocks may cost jobs, but there are a range of softer mechanisms firms have at their disposal, such as redeployment, pay freezes, temporary

closures, and unpaid leave (Lai et al., 2016; Wang et al., 2018). Whether or not workers can constrain the imposition of compulsory redundancies is subject to their ability to mobilise countervailing power (Kelly, 2012; Olson, 2009). Empirical studies show that well-supported collective bargaining with the threat of collective action (strikes) can curb the use of compulsory lay-offs in firms with more than 100 employees (Brewster et al., 2015) or the fact that union members equipped by better legal advice can defer MNCs' opportunistic behaviour (Jirjahn, 2017). This latter is our main focussince FoEs tend to be large in the UK and tends to use compulsory redundancies more readily when unions are weak and collective bargaining unavailable. This is despite relatively clear and supportive legislation imposed on large firms to protect workers from reckless 'hire and fire' practices (Brewster et al., 2015). Our understandings of unions' protection in jobs in the micro-economic environment have been under researched (Ellonen and Natti, 2015). This is important due to a well documented continuing decline in numbers, density and influence of British trade unions (Bryson and Forth, 2011) and parallels similar developments in other countries (Gumbrell-McCormick and Hyman, 2013).

Although, the decline of union members in Britain has been dramatic in the last three decades from 13 million in 1979 to 6.5 million in 2015, and union members only makes up 13.9% of the workforce in the private sector (ONS, 2015), unions remain strong in some sectors and regions and their ability to bargain in the collective interests of their members remains high in some workplaces (Glassner et al., 2011). Large businesses are more likely to be unionized (Brewster et al., 2015; Schnabel, 2013). One main objective of trade unions is the employment security of their members alongside wage increases (Pencavel, 1984; Gall, 2003). One way in which unions support their members is by being the workplace 'police force' for the implementation of laws governing such areas as health and safety, equality, and compulsory redundancies (Metcalf, 2013). Larger firms are under more pressure to abide by legal regulations that protect employment (ACAS, 2014; Venn, 2009). A lengthy process of compulsory redundancies can prove to be both expensive and difficult when faced with strong union organisation.

In addition, Unions can safeguard jobs through collective negotiations (Kaufman and Bennett 2017) when its influence is strong. Union strength in such situations is derived from a number of factors including, *inter alia*, density levels (Visser, 2013), degree of company-level organisation and activity (Waddington and Kerr, 2009), support from the national union

(Kelly and Heery, 2009), and wider political interest in the behaviour of foreign-owned firms when it comes to local employment issues (Traxler and Brandl 2010). Therefore, it may persuade senior decision makers to negotiate alternatives of layoff (Glassner and Keune 2010). Therefore, trade union strength can reduce the likelihood of a compulsory redundancy regime.

Hypothesis 2: Union strength will reduce the propensity to layoff at FoEs.

2.3 Countries of origin and employment insecurity in host country

Country of origin has been shown to play a substantial role in determining employment volatility in at least three aspects. First, it influences the MNE decision makers' willingness to undertake FDI in particular foreign locations, the types of FDI that they employ and the resultant effects upon employment (Buck *et al.*, 2001; Cuervo-Cazurra and Un, 2015). Many MNEs concentrate their inward investment activities in countries or regions possessing the smallest geographical, cultural and psychic distance from their headquarters' location, in order to minimize the resultant perceived risks (Cuervo-Cazurra and Un, 2015). Such Uppsala approaches, as noted by Johanson and Wiedersheim-Paul (1975) and Johnason and Vahlne (1977), although being extended by Vahlne et al. (2011), has been criticised by others such as Lyles et al. (2014) as not being appropriate to international expansion. Secondly, institutional approximation between the EU and UK may contribute to reducing entry and transaction costs for EU firms operating in the UK. If so, it is reasonable to expect that EU-originating investments in the UK will be less speculative and of a more long-term strategic character compared with investments from other parts of the world, thus plausibly having a more positive impact on employment in the recipient host economy. Thirdly, labour market institutions determine the flexibility that a firm can alter labour costs in order to adjust to demand fluctuation. This is typically reflected by the level of employment protection of national labour regulations and the influence of trade unions. FoEs from a more flexible labour market, such as emerging market, may have a tendency to change labour costs (through quantity change of labour) than those from a more rigid labour market**.** For example, Merikull and Room (2014) found that the elasticity of labour demand at FoEs is country-specific, subject to the degree of labour market protection between their home and host countries.

Although UK is the most popular destination of investors from the emerging market (Seal, 2016), FoEs are predominately from the EU and North America. For example, in the non-financial business economy in 2012, the majority (54%) of FoEs were owned from within Europe, and with a third (33%) owned from within North and South America, the rest was owned by the rest of the world (ONS, 2014). Since the geographic location and labour market regulations have been important factors for strategic decisions behind FDI (Buck et al, 2001; Cuervo-Cazurra and Un, 2015) and considering headquarters of North American FoEs is more geographically distant than its counterpart in the EU; and the low employment protection in the former than in the latter, we would, *ceteris paribus*, expect that:

Hypothesis 3: EU owned-FDI is less likely to layoff workers than American-owned FDIs in the UK.

3.Research methodology

3.1 Background to the sample

The data for this study were taken from the nationally representative Workplace Employee Relations Survey 2011 (WERS 2011) in the UK. The WERS has been undertaken every six years since 1980; and the dataset includes management data (interviews with senior HR managers), employee data (surveys of up to 25 employees within the associated organisation) and one formal employee representative per organization if there is any. This paper is based on cross-sectional management data of 2011 with 2,680 organisations with a workforce exceeding five employees or more. The data were collected between March 2011 and June 2012 when UK was experiencing a 'double-dip' recession following the financial crisis of 2008.

As a national data set, the WERS 2011 data have the advantage of collecting national representative information on employment practices in a changing economic environment (Whyman et al., 2015). Given the recent recession, alongside the standard set of common questions asked to HR managers about their HR practices and workforce characteristics, WERS2011 includes a number of additional questions aimed at capturing the impact of recession and employment practices since the economic downturn of 2007/2012. It also included questions on the ownership of firms, eliciting information as to whether the organisation was in domestic or foreign ownership, as well as whether the organisation was publicly or privately owned at the time the survey was completed. This paper is concerned

with the contrasting response to the recession between domestic and foreign-owned workplaces in the same industry of the private sector. Industries where there were no foreign ownership in the survey were therefore excluded from the analysis. This included Education, Public administration, and Real Estate activities. In excluding these industries the total number of usable observations in the private sector was reduced to 1,500 workplaces.

3.2 Measures

Redundancy was defined as whether or not the organisation undertook compulsory or voluntary redundancy in response to the recession of 2008/2012. There were 439 workplaces which reported that redundancies had been made, accounting for 29% of the sample. The extent of the redundancy behaviour was measured in two ways. Firstly, by the number of employees made redundant and secondly by the proportion of workforce made redundant. The former is the number of employees laid off during the previous 12 months before the survey took place. There were 278 firms that provided the exact number of employees who were laid off in that period. The mean number of people made redundant among these workplaces was 29, with a range of between 1 to 1,000 persons. The latter was calculated by dividing the number of people made redundant by the number of employees on payroll during the previous year. The mean workforce made redundant among these firms was 8%, although the proportion made redundant in any specific firm ranged from 0.1% to 76%.

Foreign ownership. There are a number of ways of defining whether a domestic organisation is foreign owned, for example, the OECD (2003) suggests that a controlling interest can be established within a domestic firm, if a foreign owner has a minimum of 10% of the ordinary shares or voting shares within a domestic company. For the purpose of this study however, we used more stringent measurement: FoEs is defined as the foreign owner has a greater than 50% ownership of the domestic firm. This is also due to the information availability in WERS 2011 study. There were 366 FoEs in the sample accounting for 24% of the total number of firms.

MNE's Head office location was the source country behind FoE activity in the UK. Of the 338 MNEs in the sample, the location of their head offices was distributed between UK (42%), Europe (21%), North America (19%), and Japan and others (18%). Given the spatial distribution of these head offices, it was also possible to evaluate whether the location of the head office had an impact on changes in absolute and relative employment patterns after the 2008/2012 recession.

3.3 Model specification

Since we intend to analyse a comparison of the redundancy behaviour: 1. between FoEs and DoEs; 2. among FDIs with different head office locations; we have 1500 observations for question 1 and 344 observations for question 2. To examine the comparison between two or more groups, two Probit regressions are employed. The moderating effect is tested by an interactive item.

In order to examine the extent of layoff between FoEs and DoEs if redundancies had been made (366 firms), we consider both the absolute number of employees made redundant and the proportion of workforce laid off. For the former, since the distribution of the number of employees made redundant is over-dispersed, in particular, with the conditional variance (47) exceeding the conditional mean (29), a negative binomial regression was considered the appropriate statistical method (UCLA, 2014). For the latter, since most value of the proportion of workforce laid off is between 0.2 and 0.8, an Ordinary Least Squares regression was employed which is considered to be more reliable (Long, 1997)

4. Analysis

4.1 Preliminary analysis

In Table 1, the results indicate that foreign ownership, workplace size, the extent of adverse effect caused by the recession are positively and significantly correlated with the likelihood that firms undertook redundancy. Trade union strength is negatively and significantly correlated with redundant behavior. Other variables show correlations as expected, for example, the higher unionised workforce is positively correlated with the size of the firm.

A T-test was undertaken, in Table 2, in order to compare the mean differences in the organisational characteristics between FoEs and DoEs. The results show that 40% of FoEs had made some employees redundant in response to the recent recession, compared with only 25% of DoEs which took this action, a result which is significantly different ($|T|=5.51$, $p<0.001$) between the two types of organisations. There was no significant difference, however, in terms of the adverse effect of recession on their businesses between DoEs and FoEs. FoEs tend to have a larger proportion of union members than DoEs. The average proportion of union members for the former is 21% compared with only 8% among DoEs.

In terms of business activities, FoEs have a significantly higher presence in manufacturing (25%), electricity, gas, steam and air (9%), financial and insurance (6%), transportation and storage (7%), and information and communication (6%) compared with UK owned firms; the proportions of which were 11%, 1% , 1%, 4% and 4% respectively. Conversely, DoEs were more likely to have a bigger presence in the accommodation and food service sector, human health and social work sector, the arts, entertainment and recreation, and other services. A similar proportion of FoEs, 18% compared with DoEs, 17%, were presented in wholesale and retail sector, and because of near equality, this is used as the base group in further regression analysis.

It is also possible to examine the nature of the workforce employed between FoEs and DoEs. The WERS 2011 data categorises the workforce into six groups based upon the largest occupation group at the workplace according to the Standard Occupational Classification 2010. There is a significantly higher proportion of higher managerial and professional employees (15%) among FoEs, compared with 7% of DoEs. The latter were more likely to employ lower-skilled workers. Over one third (35%) of DoEs categorized the largest occupational group in their workforce as being in semi-routine jobs and almost a further fifth (22%) had their largest occupational group placed within routine jobs. However, the proportion in FoEs is 25% and 14%, respectively. Since both FoEs and DoEs have a similar share of the largest occupation group as being in intermediate occupations, it is used as the base group in subsequent regressions.

Before undertaking our regression analysis, we tested the extent of multicollinearity among main variables; the Variance Inflation Factor (VIF) was computed. The VIF has values ranging from 1.1 to 1.4, far below the threshold of 10 (Whyman et al., 2015), suggesting multicollinearity is not a concern.

4.2 Regression Results

This study seeks to explore the redundancy behaviour between FoEs and DoEs during the recent recession in the UK. The first probit regression result reported in Table 3. We further explored the extent of redundancies made between FoEs and DoEs in Table 4, 5 and 6. We then examined the potential impact of location of MNEs' head offices on their redundancy decisions in Table 7.

In Table 3, using the whole sample of 1,500 observations, specification 1 shows that FoEs are moderate significantly correlated with the likelihood to make workers redundant (b=0.22, p<0.05) when other observable characteristics are the same: size, history, impact of recession, the presence of union strength and controlling for industry and occupation groups. This provides empirical evidence to support our **hypothesis 1a**. In line with extant literature, those organisations that had been greatly affected by the recession and larger firms are positively and significantly correlated with carrying out redundancies. Specification 2 of Table 3, an interaction item between union strength (using density as a proxy for strength measured as a percentage of employees unionised) and foreign ownership was included, the coefficient is negative and significant (b= - 0.66, p<0.10), indicates that foreign-owned enterprises with high union presence is less likely to make staff redundant. This provides evidences to show the countervailing power of trade union, therefore supports hypothesis 2.

In Table 4, we examined determinants of the proportion of the workforce was made redundant; and in Table 7, we look at factors that are correlated with staff number of layoffs.

The regression in Table 4 shows that FoEs are significantly (b=0.05, P<0.01) more likely to make a higher proportion of their workforce redundant during the recession. When large firms laid-off a smaller proportion of their workforce, this could entail a larger absolute number of employees. This is confirmed in Table 5, where a positive and significant correlation between the numbers of employees made redundant and firm size was established. After controlling for firm size, the reported impact caused by recession, and union strength, industry and occupation group, again the correlation between FoEs and higher absolute number of redundancies is significant (b=0.95, p<0.001). This provides evidence to support our hypothesis 1b.

Apart from analysing the differences of offloading employees between DoEs and FoEs as response to the recent financial crisis in the UK, this paper also examined the potential different responses of the FoEs from different source countries in Table 6. Using FoE's head office based in the UK as the base group, there was no significant difference between this base group and those FoEs that had their head offices in America, Europe or Asia (in the first column of the regression) as to whether these firms undertook redundancy. Instead, it shows that firm size (b= 0.13, p<0.05) and recession impact (b= 0.58, p<0.01) are positively and

significantly correlated with redundancy among FoEs in the UK. Therefore, our hypothesis 3 is not supported.

5. Discussion

5.1 Theoretical implications

The present study investigates job insecurity at FoEs during the 2008-2012 recession, and we found that FoEs appear to be more likely to undertake a redundancy and to lay off a higher proportion of workforce or more workers than DoEs even after controlling the degree of adverse impact caused by the recession, firm size, firm history, type of industry and workforce components. However, the likelihood to make a redundancy is significantly attenuated by the strength of trade union.

Our findings added a new dimension of job insecurity, redundancy, in safeguarding jobs in the FoEs; and one new aspect of job insecurity study at microeconomic level by taking into account firm's ownership (Brewster et al., 2015; Ellonen and Natti, 2015; Otto et al., 2016). This may attribute to a more elastic labour demand in the FoEs than DoEs (Bernard and Jensen, 2007; Fabbri et al., 2003) and its' footloose syndrome (Gorg and Strobl, 2003). To some extent, it confirms the lower employment commitment of FoEs driven by fewer risks involved in large-scale layoffs than DoEs. Such risks include reputational damage, adverse political commentary, local opposition, and potential loss of customer base. This reflects the short-term profit driven nature of FoEs (Dill et al., 2016) since a long-term concern of DoEs will further restrain layoff decision, for example, post-recession, if wish to expand, it will require government support and local population agreement (Jack, 2018). However, there did not appear to be any support for the fact that institutional differences between the source country and host county impacted on the redundancy incident and quantity of layoff.

More importantly, it shows the influence of union strength when examining a discreet form of job insecurity, redundancy, at FoE's. A negative but not statistically significant relationship between the level of employment protection legislation and job destruction was summarized by Haaland et al.(2003 p.18). We empirically examine the influence of the actor to "police" employment protection legisaltions. Trade union as a collective actor plays a main role when members' employment is threatened. In Table 2, the average of union strength (measured by percentage of employees are union member) of FoEs are a lot higher,

0.21, than that of DoEs, 0.08. In Table 3, it shows that union strength can curtail the tendency to layoff at FoEs. The moderation effect was further explored through the marginal effect (difference-in-difference) of union density on the likelihood to make redundant between FoEs and DoEs in Figure 1, it shows, FoEs are more likely to lay off employees than DoEs when union density is low, but such likelihood declines and even become negative with the increased union density.

Practical implications

It follows therefore, that UK as an open economy where the rest of world now holds approximately 54% of the UK stock market share since 2012 (ONS, 2015). It has placed employment contribution at the regional and national level on inbound FDI as a leading policy priority to promote this type of investment (McDonald et al., 2005). However, shareholders' interests override those of workers, customers, suppliers, innovation, communities, as evidenced by Kraft Foods took over the Cadbury in 2010 (Jack, 2018). Although the current prime minister, Theresa May has warned big business that the government would step in where markets failed to produce an economic model that worked for everyone, the discreet form of job insecurity, redundancy, has been overlooked (ESRC, 2010). This study shows that trade unionism is one of the important countervailing forces to safeguarding jobs, through policing regulations, in particular at MNEs (Pohler and Riddell 2015). Meanwhile, the source country of the FoEs did not have effect upon job insecurity, suggesting that policy makers do not have to target specific countries from overseas investment.

5.2 Limitations of the study and suggestion for future study

There are a few limitations of this study which need to be addressed. First, this study examined firm level institutions on employment practices of FoEs in host country. To be specific, the influence of trade unions in the UK has been discussed. The national context, sector specific regulations and occupational differences are equally important to influence plant closure or employment changes at FoEs (Svalund, 2015), but the scope of this study does not allow us to explore further. Future study can provide insight of the different mechanisms within the institutional theory framework (regulatory, normative, and cognitive) (Michailova and Ang, 2008), in particular, FDIs from emerging economy to the developed economy, to explore employment practices of cross-border businesses further.

Second, controversy to no influence of union between perceived subjective job insecurity and employee's well-being during economic boom in Sweden (Hellgren and Chirumbolo, 2003), this research shows trade union can reduce objective job insecurity, layoff in the UK. It will be interesting to examine the role of trade union after layoff was prevented, the loyalty argument (Sverke and Goslinga, 2003) and the interplay between objective, subjective job insecurity and staff well-being. This is important with the declining union influence in the UK and parallel developed economy and the increased objective job insecurity (Wang et al., 2018).

Third, this paper has examined the difference of layoff between FoEs and DoEs, other characteristics of FoEs, could determine job insecurity fundamentally, *inter alas*, mode of entry and the embeddedness of FoEs into the national and regional economy. FDIs (such as joint ventures) involve lower levels of resource commitment (Hill et al., 1990; Meyer et al., 2009). While wholly owned subsidiaries (set up on greenfield sites or through acquisition) in foreign locations are likely to enhance the employment benefits of inbound FDI from the host economy perspective (McDonald et al., 2002) and ensure more secure employment. The embeddeness of FoEs is also an important aspect relating to job security. Studies have examined the effects of local sourcing (Bailey and Driffield, 2007; Williams, 2003), networks and clusters (Dunning, 2000; Mcdonald and Vertova, 2001), subsidiary and joint venture autonomy (Holm and Pedersen, 2000) on the creation and safeguarding of jobs. The mode of entry and FoEs' embeddedness are not available in the dataset used, and future studies can explore this issue further and increase our understandings in job insecurity at firm level (Brewster et al., 2015; Otto et al., 2016).

6. Conclusions

Against the recent global recession, we examined job insecurity at foreign-owned enterprises with the concern that FoEs are more "footloose", face a high elasticity of labour demand, and have less pressure to preserve jobs. Using the WERS 2011 data, we found that foreign-owned firms appear to be more likely to make redundancy decisions and to layoff, both more workers and, a higher proportion of their workforce. This conforms the high employment volatilitye at FoEs than DoEs (Jirjahn,2017) and recession may offer a good excuse to get rid of less productive workers.

Our finding also shows that left to their own devices those senior managers in FoEs will more readily lay off workers in a recession than DoEs in similar circumstances in the U.K. . In all of this the major factor holding back compulsory redundancy decisions appears not to be the regulatory frame work but the actions of trade unions. Trade unions, when well supported by both members in the firm and national officers, can alter the balance of costs and risks in the decision-making process of senior managers (Pohler and Riddell, 2015). Trade union arguments during the collective bargaining process can highlight alternatives to layoffs, policing redundancy regulations or offer better legal advice for their members, and the threat (even if only implied) of industrial action can give pause to the redundancy option. However, redundancy tendency is moderated by union strength at FoEs. By constrast, we did not find any significant differences to lay off employees among the location of MNEs' head office.

All in all, this study complements the concerned job insecurity (plant closure) caused by increased FDI in the host country by investigated a new and discrete dimension, layoff, during economic recession. More importantly, our results show the trade union can alleviate the negative impact. This offers an insight on mechanism between the inconclusive relationship observed between MNCs, employment protection legislation and job deduction (Haaland et al., 2003; Wagner and Gelubcke, 2012) and is particular interest among developed economies where union memberships has declined in the last two decades (Jirjahn, 2017). This finding provokes the debate on the role of trade union when there is increased objective job insecurity (Angrave et al., 2017; Wang et al., 2018) and shed lights on the uprising union organizing carried out by workers in MNCs, such as Uber driver and Ryanair pilots strike (BBC news, 10 August 2018)

Acknowledgment

The authors acknowledge the 2011 Workplace Employment Relations Survey (WERS) sponsored by the Department for Business Innovation and Skills, the Economic and Social Research Council, the Advisory, Conciliation and Arbitration Service, the UK Commission for Employment and Skills and the National Institute of Economic and Social. The survey fieldwork was undertaken by The National Centre for Social Research, and the data was distributed by the Data Archive at the University of Essex. None of these organizations bears any responsibility for the authors' analysis and interpretations of the data.

Compliance with Ethical Standards:

Funding and Author identifying information on the title page that is separate from the manuscripts.

Conflict of Interest: the Author declares that they have no conflict of interest.

Ethical approval: This article does not contain any studies with animals performed by any of the authors.

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

References

ACAS (2014) Handling large-scale redundancies, ACAS, London

Adam G (1975) Multinational corporations and worldwide sourcing. In: Radice H (Ed.) *International firms and modern imperialism*. Penguin Modern Economic, pp 89-103.

.

Andrews M Bellmann L Schank T and Upward R (2012) Foreign-owned plants and job security. *Review of World Economics, 148*(1): 89-117.

Angrave D Charlwood A and Greenwood I (2017) Do economic conditions influence union activism behaviour? Economic and Industrial Democracy 38(2): 344-369.

Aol (2013) 3.7 million redundant since 2008 recession. Available at: www.aol.co.uk/2013/02/20/3-7m-redundant-since-2008-recession/ (accessed on 24 May 2017)

Bailey D and Driffield N (2007) Industrial Policy, FDI and Employment: Still 'Missing a Strategy'. *Journal of Industry, Competition and Trade* 7(3): 189 – 211.

Barrell R and Pain N (1997) Foreign Direct Investment, Technological Change and Economic Growth within Europe. *Economic Journal* 107(4):1770-86.

BBC News, 10 August 2018, Ryanair strike: one in six flights cancelled in pilot walkout. Avaialbe at https://www.bbc.co.uk/news/business-45139077

Bernard A B and Sjoholm F (2003). Foreign owners and plant survival (No. w10039). National Bureau of Economic Research.

Bernard AB and Jensen J B (2007) Firm structure, multinationals, and manufacturing plant deaths. *The Review of Economics and Statistics*. *89*(2):193-204.

Blanchard P Dhyne E Fuss C and Mathieu C (2012). (Not so) easy come, (still) easy go? Footloose multinationals revisited. National Bank of Belgium, Working Paper No. 223.

Brewster C Wood G and Goergen M (2015). Institutions, unionization and voice: The relative impact of context and actors on firm level practice. Economic and Industrial Democracy 36(2):195-214.

Brummer A (2012) Britain for Sale: British Companies in Foreign Hands-The Hidden Threat to Our Economy. Random House, London.

Bryson A and Forth J (2011) Trade unions *Chapter 17* pp.255-271 in The Labour Market in Winter (eds. P. Gregg and J. Wadsworth), OUP

Buck T Filatotchev I Noland P and Wright M (2001) Exporting entry modes and transition: A case comparison between Russia and China. In: Hughes M D and Taggart J H (eds) *International Business- European Dimensions*. Palgrave: Basingstoke and New York pp. 193-211.

Cuervo-Cazurra A and Un A (2015) Country-of-Origin, Government-and Consumer-Based Advantage & Disadvantage of Foreignness, and FDI. *Academy of Management Proceedings* 1: 15760.

Dill, V, Jirjahn, U and Smith S C (2016) Do foreign owners favour short-term profit? Evidence from Germany. *Cambridge Journal of Economics 40*(1): 123-140.

Dill V., and Jirjahn, U. (2016). Foreign owners and perceived job insecurity: evidence from linked employer-employee data. International Journal of Manpower, 37(8), 1286-1303.

Driffield N (1999) Indirect Employment Effects of Foreign Direct Investment Into the UK. *Bulletin Of Economic Research* 51(3): 207-222.

Dunning J H (2000) *Regions, globalization, and the knowledge economy*. Oxford, UK: Oxford University Press, pp. 7-41.

Ellonen N and Nätti J (2015). Job insecurity and the unemployment rate: Micro-and macro-level predictors of perceived job insecurity among Finnish employees 1984–2008. Economic and Industrial Democracy, 36(1), 51-71.

ESRC. 2010. Foreign ownership and consequences for British business. Available at : www.esrc.ac.uk/news-events-and-publications/evidence-briefings/foreign-ownership-and-consequences-for-british-business/ (accessed on 9 August 2016).

Fabbri F Haskel J and Slaughter J (2003) Does nationality of ownership matter for labour demands? *Journal of the European Economic association* 1 (2): 698-707.

Gall G (Ed.) (2003) *Union Organizing: Campaigning for trade union recognition* (Vol. 8) Psychology Press.

Geishecker I Riedl M and Frijters P (2012) Offshoring and job loss fears: An econometric analysis of individual perceptions. *Labour Economics 19*(5):738-747.

Glassner V and Keune M (2010) Negotiating the crisis? Collective bargaining in Europe during the economic downturn.*Dialogue working paper 10*.

Glassner V Keune M and Marginson P (2011) Collective bargaining in a time of crisis: developments in the private sector in Europe. *Transfer: European Review of Labour and Research, 17*(3):303-322.

Gumbrell-McCormick R and Hyman R (2013) *Trade unions in Western Europe: hard times, hard choices*. Oxford University Press.

Harris, Richard (2009). The effect of foreign mergers and acquisitions on UK productivity and employment. Report submitted to UKTI October .

Hellgren J and Chirumbolo A (2003) Can union support reduce the negative effects of job insecurity on well-being? *Economic and Industrial Democracy 24*(2):271-289.

Holm U and Pedersen T (2000) The emergence and impact of MNC centres of excellence. London and Basingstoke: Macmillan.

Hill C W L, Hwang P and Chan K W (1990) An Eclectic Theory of the Choice of International Entry Mode. *Strategic Management Journal* (11): 117 - 128.

Hyman, R (2002) *European labour markets or European labour markets?: challenges for European labour*. In: Ottosson, Jan and Magnusson, Lars, (eds.) Europe: One Labour Market? Travail & Société - Work & Society (30). Peter Lang. ISBN 9789052019499

Inekwe JN (2013) FDI, employment and economic growth in Nigeria. *African Development Review 25*(4): 421-433.

Jirjahn, Uwe (2017) : Foreign Ownership and Intra-Firm Union Density in Germany, IZA Discussion Papers, No. 11154, Institute of Labor Economics (IZA), Bonn

Jack S (2018) Why the GKN bit batter matters? BBC News, 29 March 2018. Available at http://www.bbc.co.uk/news/business-43566127

Johanson J and Vahlne J-E (1977) The internationalization process of the firm—A model of knowledge development and foreign market commitment. *Journal of International Business Studies* 8(1): 23–32.

Johanson J and Wiedersheim-Paul F (1975) The internationalization of the firm: Four Swedish cases. Journal of Management Studies, 12(3): 305–322

Jost T. (2013) Inward FDI in Germany and Its Policy Implications, 2012, *Columbia FDI Profiles*, April 2013, Vale Columbia Center on Sustainable International Investment.

Kaufman BE and Bennett JT (2017) What do unions do? A twenty-year perspective. In *What Do Unions Do?* (pp. 9-19). Routledge.

Kelly J (2012) *Rethinking industrial relations: Mobilisation, collectivism and long waves*. Routledge.

Kelly J and Heery E (2009) *Working for the union: British trade union officers* (Vol. 22). Cambridge University Press.

Lai Y Saridakis G Blackburn R and Johnstone S (2016) Are the HR responses of small firms different from large firms in times of recession? *Journal of Business Venturing*, *31*(1): 113-131.

Long J S (1997) Regression Models for Categorical and Limited Dependent Variables. Sage Publishing.

Lyles M Li D and Yan H (2014) Chinese Outward Foreign Direct Investment Performance: The Role of Learning, *Management and Organization Review* 10(3): 411–437

McAleese D and Counahan M (1979) 'Stickers' or 'Snatchers'? employment in multinational corporations during the recession. *Oxford Bulletin of Economics and Statistics* 41(4): 345-358.

McDonald F and Vertova G (2001) Geographical Concentration and Competitiveness in the European Union. *European Business Review* 13(3):157-165.

McDonald F Tüselmann H J and Heise A (2002) Foreign direct investment and employment in host regions. *European business review* 14(1): 40-55.

McDonald F Tüselmann H J Voronkova S and Dimitratos P (2005) The strategic development of foreign-owned subsidiaries and direct employment in host locations in the United Kingdom. *Environment and Planning C: Government and Policy 23*(6): 867-882.

Meriküll J and Room T (2014) Are Foreign-owned Firms Different? Comparison of Employment Volatility and Elasticity of Labour Demand, ECB working paper 1704.

Metcalf D (2013) Trade unions: resurgence or perdition? An economic analysis. In *Trade Unions*: resurgence or demise? (eds. S. Fernie and D. Metcalf) (pp. 101-135). Routledge.

Meyer K E Estrin S Bhaumik S K and Peng M W (2009) Institutions, resources, and entry strategies in emerging economies. *Strategic Management Journal* 30 (1): 61-80.

Michailova S and Ang S H (2008) Institutional explanations of cross-border alliance modes: The case of emerging economies firms. *Management International Review 48*(5):551-576.

Navaretti, G B, D Checchi, and A Turrini.(2003) Adjusting labor demand: multinational versus national firms: a cross-European analysis. Journal of the European Economic Association 1.2-3 : 708-719.

OECD (2003) Direct Investment Enterprise, Glossary of Statistical Terms, available at https://stats.oecd.org/glossary/detail.asp?ID=622 (accessed on 6 May 2018).

Olson M (2009) *The logic of collective action* (Vol. 124). Harvard University Press.

ONS (2014) 5 facts about foreign-owned businesses in the UK. Available at www.webarchive.nationalarchives.gov.uk/20160106152548/http://www.ons.gov.uk/ons/rel/abs/annual-business-survey/business-ownership-in-the-uk--2012/sty-abs-business-ownership.html (accessed on 10 August 2017)

ONS. 2015 Ownership of quoted shares for UK domiciled companies 2014. Available at www.backup.ons.gov.uk/2015/09/02/ownership-of-quoted-shares-for-uk-domiciled-companies-2014/ (accessed on 7 July 2016).

Otto K Mohr G Kottwitz M U and Korek S (2016) The joint impact of microeconomic parameters and job insecurity perceptions on commitment towards one's job, occupation and career: A multilevel approach. *Economic and Industrial Democracy*, *37*(1), 43-71.

Pencavel JH (1984) The tradeoff between wages and employment in trade union objectives. *The Quarterly Journal of Economics 99*(2):215-231.

Pohler D and Riddell C (2015) Multinational Behavior in Host Countries: The Role of Countervailing Power. In *Academy of Management Proceedings* 1: 11481.

Rodrik D (1997) Sense and nonsense in the globalization debate. *Foreign Policy*, 107:19-37.

Scheve K and Slaughter MJ (2004) Economic insecurity and the globalization of production. *American Journal of Political Science 48*(4): 662-674.

Schnabel C (2013) Union membership and density: Some (not so) stylized facts and challenges. *European Journal of Industrial Relations 19*(3):255-272.

Seal T (2016) U.K. Foreign Investment Sets Record, Boosted by Emerging Markets. Bloomberg, available at https://www.bloomberg.com/news/articles/2016-08-29/u-k-foreign-investment-sets-record-boosted-by-emerging-markets

Slaughter M J (2001) International trade and labor–demand elasticities. Journal of International Economics, 54(1), 27-56.

Sui S Morgan HM and Baum M (2015) Internationalization of immigrant-owned SMEs: The role of language. *Journal of World Business*, *50*(4): 804-814.

Sverke M and Goslinga S (2003) The consequences of job insecurity for employers and unions: Exit, voice and loyalty. *Economic and Industrial Democracy 24*(2): 241-270.

Svalund J (2015) Adjusting labour through crisis: A three industry comparison. Economic and Industrial Democracy, 36(1): 99-121.

The Irish Times, Jan 6, (2016) One-in-Five employed by foreign multinationals, available at [https://www.irishtimes.com/business/economy/one-in-five-now-employed-by-foreign-multinationals-1.2486929]

Traxler F and Brandl B (2010) Preconditions for pacts on incomes policy: Bringing structures back in. *European journal of industrial relations 16*(1):73-90.

UNCTAD (2017), World Investment Report, United Nations, Washington. Available at http://unctad.org/en/PublicationsLibrary/wir2017_en.pdf (accessed on 7 May 2017)
UCLA (2014) Negative Binomial Regression: STATA Data Analysis Examples. Available at https://stats.idre.ucla.edu/stata/dae/negative-binomial-regression/ (accessed on 6 April 2016)

Vahlne J-E Ivarsson I and Johanson J (2011) The tortuous road to globalization for Volvo's heavy truck business: Extending the scope of the Uppsala model *International Business Review* 20 1–14

Venn D (2009) Legislation, collective bargaining and enforcement. OECD paper

Visser J (2013) *Wage Bargaining Institutions–from crisis to crisis* (No. 488). Directorate General Economic and Financial Affairs (DG ECFIN), European Commission.

Waddington J and Kerr A (2009) Transforming a trade union? An assessment of the introduction of an organizing initiative. *British Journal of Industrial Relations*, *47*(1): pp.27-54.

Wang W Mather K and Seifert R (2018) Job insecurity, employee anxiety, and commitment: the moderating role of collective trust in management, *Journal of Trust Research*, DOI:10.1080/21515581.2018.1463229

Wagner, J., and Gelübcke, J. P. W. (2012). Foreign ownership and firm survival: First evidence for enterprises in Germany. *Economie internationale*, (4), 117-139.

Workplace Employment Relations Study for 2011, Gov.UK. (2014), available at: https://www.gov.uk/government/publications/the-2011-workplace-employment-relations-study-wers (accessed on 06 September 2017)

Wooden, Mark. 1999. "Union Amalgamations and the Decline in Union Density," *Journal of Industrial Relations* 41: 35 – 52.

Whyman P B Baimbridge M J Buraimo B A and Petrescu A I (2015) Workplace Flexibility Practices and Corporate Performance: Evidence from the British Private Sector. *British Journal of Management 26*(3): 347-364.

Williams D (2003) Explaining employment changes in foreign manufacturing investment in the UK. *International Business Review* 12(4): 479-497.

Tables

Table 1 Descriptive statistics of main variables for workplaces in the sample

	Variables	Definition	Mean (S.E.)	1	2	3	4	5	6
1	Redundant action	Compulsory or voluntary redundancies was taken in response to the recent recession [0,1]	0.29 (0.45)	1					
2	Foreign ownership	Foreign owned or control the workplace [0,1]	0.24(0.43)	0.14**	1				
3	Ln (Workplace size)	Currently employees do you have on the payroll at this workplace [5,11605]	264(820)	0.27**	0.33**	1			
4	Workplace history	Number of Years this workplace have been in operation [0, 390]	31(39)	0.15**	0.06*	0.24**	1		
5	Recession Impact	Workplace has been adversely affected by the recent recession [1=no adverse effect, 5= a great deal]	3.25 (1.20)	0.35**	-0.03	-0.04	0.05*	1	
6	Union strength	Percentage of union member [0, 1]	0.11(0.24)	0.08**	0.22**	0.45**	0.16**	-0.02	1

Note: * $p<0.05$;* $p<0.01$

Table 2 T-test of firm characteristics between foreign-owned and domestically-owned Enterprises

Definition	Foreign-owned Enterprises	UK- owned Enterprises	|T|
Redundant action	0.40(0.02)	0.25(0.01)	5.51***
Recession has a lot or a great deal adverse impact	0.42(0.3)	0.45(0.01)	1.29
Workplace age	33(38)	29(37)	1.68*
Firm size	520(61)	187(20)	6.42***
5-49	21(1)	18(0.4)	2.37**
50-249	132(6)	111(3)	3.49***
250	1101(165)	1046(127)	0.31
Union strength	0.21(0.01)	0.08(0.00)	8.34***
Sector			
Manufacturing	0.25(0.02)	0.11(0.01)	6.45***
Electricity, gas, steam & air	0.09(0.01)	0.01(0.00)	8.14***
Water	0.02(0.00)	0.02(0.00)	0.69
Construction	0.04(0.01)	0.06(0.00)	1.82
Wholesale & retail	0.18(0.02)	0.17(0.01)	0.75
Transportation & storage	0.07(0.01)	0.04(0.00)	1.96**
Accommodation & food service	0.06(0.01)	0.11(0.00)	2.57***
Information & communication	0.06(0.01)	0.04(0.00)	2.07**
Financial and insurance	0.06(0.01)	0.01(0.00)	4.61***
Professional, scientific & technical	0.07(0.01)	0.09(0.00)	1.22
Administrative & support service	0.04(0.01)	0.07(0.00)	2.01**
Human health & social work	0.01(0.00)	0.11(0.00)	6.10***
Arts, entertainment &recreation	0.01(0.00)	0.04(0.00)	2.03**
Other service activities	0.01(0.00)	0.03(0.00)	2.25**
Occupation of the largest group			
Higher managerial &professional	0.15(0.02)	0.07(0.00)	5.30***
Lower managerial& professional	0.12(0.01)	0.10(0.00)	0.88
Intermediate occupation	0.22(0.02)	0.19(0.01)	0.82
Lower supervisory & technical Occupations	0.09(0.01)	0.05(0.00)	2.64***
Semi-routine occupation	0.25(0.02)	0.35(0.01)	3.18***
Routine	0.14(0.02)	0.22(0.01)	2.91***
Sample size	366	1,134	

Note: ** $p<0.05$ *** $p<0.01$

Table 3 Probit regression on whether the firm undertook redundancy as countermeasure to the financial crisis and the moderating effect of trade union[1]

Redundant action=1	Coef.(Std. Err.)	Coef.(Std. Err.)
Foreign ownership	0.23*(0.10)	0.33***(0.12)
Firm size (ln (number of employees))	0.21***(0.03)	0.20***(0.03)
Firm history (ln(number of years))	0.10*(0.04)	0.09*(0.05)
Adverse impact by the recession	0.55***(0.04)	0.54***(0.04)
Union strength	0.07(0.23)	0.32(0.26)
Union strength*foreign ownership		-0.66*(0.36)
Industry (Base group: whole sale and retail)		
Manufacture	0.19(0.14)	0.21(0.14)
Electricity, gas, team and	-0.18(0.27)	-0.08(0.27)
Water related industry	-0.28(0.36)	-0.19(0.32)
Construction	0.55***(0.19)	0.57***(0.19)
Transportation &storage	-0.16(0.20)	-0.16(0.24)
Accommodation and food service	-0.45**(0.18)	-0.44**(0.18)
Information and communication	0.20(0.23)	0.22(0.23)
Financial and insurance activities	0.19(0.29)	0.18(0.29)
Professional, scientific and Technology	0.58***(0.18)	0.61***(0.18)
Administration and support service	-0.14(0.19)	-0.12(0.19)
Human health and social work	-0.65**(0.24)	-0.65***(0.24)
Arts, entertainment &recreation	0.21(0.23)	0.23(0.23)
Other service activities	0.42(0.26)	0.43(0.26)
Largest occupation group (Base group: Intermediate occupation)		
Higher managerial and professional	0.21(0.17)	0.20(0.17)
Lower managerial and professional	-0.02(0.16)	-0.03(0.16)
Lower supervisory and technical	-0.28(0.18)	-0.26(0.18)
Semi-routine	-0.53***(0.14)	-0.52***(0.14)
Routine occupation	-0.19(0.15)	-0.18(0.15)
Number of observations	1295	1295
Log pseudolikelihood	-551.47	-549.84
Pseudo R^2	0.28	0.28

Note: * p<0.1 ** p<0.05 *** p<0.01

[1] This data excludes three sectors for which there was with no foreign ownership

Table 4 OLS regression on proportion of workforce made redundant if redundancy occurred

	OLS	Tobit
Percentage of workforce made redundant	Coef.(Std. Err.)	
Foreign ownership	0.05***(0.01)	0.10**(0.04)
Adverse impact by the recession	0.01(0.00)	0.02(0.02)
Firm size (ln (number of employees))	0.01(0.01)	0.03**(0.01)
Firm history(ln(number of years))	-0.02**(0.07)	-0.04**(0.01)
Union strength	-0.00(0.02)	0.03(0.08)
Union strength*foreign ownership	0.05(0.05)	-0.16(0.13)
Industry	Yes	Yes
Occupation group	Yes	Yes
/Sigma		0.26(0.01)
Number of observations	344	358
Ajusted R^2	13%	16%

Note: * p<0.1 ** p<0.05 *** p<0.01

Table 5 Negative-Binomial regression on proportion of employee made redundant if redundancy occurred

Number of employees made redundant	Coef.(Std. Err.)
Foreign ownership	0.92***(0.25)
Adverse impact by the recession	0.32***(0.08)
Firm size (ln (number of employees))	0.71***(0.05)
Firm history(ln(number of years))	0.06(0.12)
Union strength	0.54(0.53)
Union strength*foreign ownership	0.08(0.81)
Level of competition at overseas market	0.03(0.09)
Level of market competition in the UK	0.31**(0.12)
Industry	Yes
Occupation group	Yes
/lnalpha	0.77
alpha	2.16
Number of observations	324
Log likelihood	-865.02
Pseudo R^2	12%

Note: * p<0.1 ** p<0.05 *** p<0.01

Table 6 Probit regression on the impact of headquarter location on MNEs' redundant action

Redundant action=1	Coef. (Std. Err.)
UK based FDI	
North American based FDI	0.42(0.24)
Europe based FDI	-0.22(0.22)
Japan and other locations based FDI	0.02(0.23)
Firm size(ln (number of employees))	0.13**(0.06)
Firm history(ln(number of years))	0.18(0.09)
Union strength	-0.28(0.39)
Adverse impact by the recession	0.58***(0.09)
Industry	Yes
Occupation group	Yes
Number of observations	266
Log pseudolikelihood	-151.44
Pseudo R^2	0.23

Note: * p<0.1 ** p<0.05 *** p<0.01

Figure 1 Marginal effect of Union Density on the Likelihood to Make Redundancy between FoEs and DoEs